

ABSTRACT OF THE DISCLOSURE

A golf club shaft is 35 - 50 percent lighter than a conventional shaft while maintaining the outer diameter and structural characteristics of conventional shafts. The shaft has at least four layers of fiber reinforced material. The fiber reinforced layers are from innermost to outermost: a first angled layer; a first straight layer; a second angled layer; and a second straight layer. The angled layers are formed by bonding together two materials, each with fibers aligned in different directions. The second angled layer maintains the proper strength and rigidity of the shaft while keeping the shaft as light weight as possible. Aligning the second layer's fibers at an angle of 35 - 75 degrees with respect to the longitudinal direction of the shaft ensures proper weight and strength characteristics of the shaft. The resulting shaft is light-weight and exhibits the flexural rigidity, flexural strength, torsional rigidity, torsional strength, and crushing strength of conventional shafts.

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